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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,169	07/21/2003	Shuji Imai	35919	6364

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EXAMINER
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PELHAM, JOSEPH MOORE

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/624,169

Applicant(s)

IMAI ET AL.

Examiner

Joseph M Pelham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

The Examiner acknowledges Applicants' submission of the amendment filed 12/9/04. Claims 1-19 remain pending.

***Claim Rejections - 35 USC § 103***

Claims 1-3, 5-8, 13-16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. 4880952 (US'952) in view of U.S. Pat. 4460630 (US'630), and any one of U.S. Pat. 3545423 (US'423), U.S. Pat. 3266477 (US'477), or U.S. Pat. 35041661 (US'661).

Referring to Fig. 9, and col. 4, lines 15-20 especially, US'952 discloses a top steel plate 36, with heater 29, self-cleaning 40 and enamel 39 layers, the latter conventionally a porcelain enamel. US'952 also explicitly states, at col. 5, lines 56-62, that plain steel avoids the expense of stainless steel and that it is more "workable;" hence it is strictly a matter of economy and not practical feasibility that favored the choice of plain steel, and the known advantages of stainless steel, i.e. corrosion resistance and hardness, clearly commend its use where cost is a principal concern. US'952 therefore discloses that stainless steel is conventionally considered for such oven walls, as stated in the previous Office action. The Examiner here cites any of US'423 (col. 2, lines 11-13), US'477 (col. 2, lines 40-43), or US'661 (col. 8, lines 7-10), to corroborate the assertion of the previous Office action, that a self-clean coating on a stainless substrate was conventional at the time of the invention, and thus contemplated by the inventors of US'952.

US'952 does not explicitly disclose a back side heater plate, a porcelain enamel glaze containing a frit with Al, Fe, Ni, Cu, Cr, Ag, Bronze, or Ti, or a metal oxide catalyst.

US'630 discloses, at Figs. 1-3, col. 5, line 54, through col. 6, line 25, and col. 7, lines 50-60, discloses a porcelain enamel glaze 2, 2' containing a frit with Al and/or Ti, and a metal oxide catalyst layer. It would have been obvious to utilize the layer structure of US'630 in the oven of US'952, since US'630 teaches such to enhance durability.

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US'962 in view of US'630, as applied to claims 1-3, 5-8, 13-16, and 18 above, and further in view of U.S. Pat. 6429161 (US'161).

The claims differ from US'962 in view of US'630 only in calling for a single layer combining the recited components. However, US'161, at Col. 1, line 32, through col. 2, lines 31, a single self-cleaning layer combining frit and metal components. It would have been obvious to combine the self-cleaning components of US'962 in view of US'630 in a single layer to simplify production.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US'962 in view of US'630 and US'161, as applied to claims 1-8 and 13-18 above, and further in view of U.S. Pat. 4283614 (US'614).

The claims differ from US'962 in view of US'630 and US'161 in calling for a perforated back "collection plate" and fan, with fluorine resin or the previously recited catalyst coating.

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Referring to Fig. 1 and col. 6, line 57, through col. 7, line 3, US'614 discloses a removable perforated back "collection plate" and fan, with the previously recited catalyst coating. It would have been obvious to adapt the back plate and fan of US'614 to the oven of US'962 in view of US'630 and US'161 to enhance heating uniformity and remove oily accumulations. Moreover, it has long been well known to use a removable fan cover plate, a modification rendered obvious by the need for convenient cleaning.

### ***Response to Arguments***

Applicants' arguments filed 12/9/04 have been fully considered but they are not persuasive. Applicants state that US'952 does not disclose a self-cleaning layer coated to a stainless steel plate (3rd paragraph of the Remarks/Arguments). As discussed above US'952 does disclose the use of a stainless steel substrate for a catalytic coating, and favors ordinary steel only by reason of manufacturing economy. The patents newly cited are adduced solely in support of the Examiner's original observation that the use of stainless steel was conventional at the time of the invention.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph M Pelham whose telephone number is 571-272-4786. The examiner can normally be reached on M-F 7:30 AM to 4:00 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**JOSEPH PELHAM  
PRIMARY EXAMINER**